

H.A

Notice of Allowability

Application No.

10/669,919

Examiner

Y. J. Han

Applicant(s)

STANCU ET AL.

Art Unit

2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to an IDS filed on 9/24/03.
2. ☒ The allowed claim(s) is/are 1-13.
3. ☒ The drawings filed on 24 September 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 9/24/03
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.


JESSICA HAN
PRIMARY EXAMINER

DETAILED ACTION

Allowable Subject Matter

1. Claims 1-13 are allowed.
2. The following is an examiner's statement of reasons for allowance:

Claim 1 recites, inter alia, creating voltage regulating signals from the difference voltage signals, wherein each of the voltage regulating signals comprises a fundamental compensating component combined with an imbalance compensating component; limiting the voltage regulating signals with a current limiting factor derived from the current elements; converting the voltage regulating signals to alternating current equivalents; and producing the plurality of control inputs to the inverter from the alternating current equivalents to thereby enable compensating regulation of the fundamental and imbalance characteristics of the alternating current multi-phase output.

Claim 6 recites, inter alia, wherein each of the voltage regulating signals comprises a fundamental compensating component combined with an imbalance compensating component; a plurality of limiters, each limiter corresponding to one of the plurality of voltage regulating signals and configured to limit its respective voltage regulating signal with a current limiting factor derived from the current elements; a second converter configured to inverse transform the voltage regulating signals into alternating current equivalents; and an inverter driver configured to process the alternating current equivalents to produce the plurality of control inputs to the inverter to thereby enable compensating regulation of the fundamental and imbalance characteristics of the alternating current multi-phase output.

Claim 10 recites, inter alia, each voltage regulating signal corresponding to one phase of the multi-phase output and each comprising a compensating fundamental component and a compensating imbalance component, means for limiting each of the voltage regulating signals with the current limiting factor; means for inverse transforming the limited voltage regulating signals into an equivalent alternating current domain; and means for processing the inverse transformed limited voltage regulating signals into the control inputs for the inverter, wherein the control inputs enable the inverter to effect compensating regulation of the fundamental and imbalance characteristics of the alternating current multi-phase output.

Claim 12 recites, inter alia, processing the DC domain elements into combined regulating and imbalance compensating elements; restoring the combined regulating and imbalance compensating elements to corresponding AC domain elements; and providing the AC domain combined regulating and imbalance compensating elements to the inverter to stabilize the inverter output to the load.

Claim 13 recites, inter alia, each voltage regulating signal corresponding to one phase of the multi-phase output and each comprising a compensating fundamental component and a compensating imbalance component, limiting each of the voltage regulating signals with the current limiting factor; inverse transforming the limited voltage regulating signals into an equivalent alternating current domain; and processing the inverse transformed limited voltage regulating signals into the control inputs for the inverter, wherein the control inputs enable the inverter to effect compensating regulation of the fundamental and imbalance characteristics of the alternating current multi-phase output.

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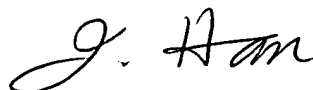
The art of record does not disclose the above limitations, nor would it be obvious to modify the art of record so as to include either of the above limitations.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Y. J. Han whose telephone number is 571-272-2078. The examiner can normally be reached on Mon-Fri 5:30am-2:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-272-2084. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



J. Han
Primary Examiner
Art Unit 2838